

Preannouncement of New Products: Overcoming Individual Adoption Barriers

Kerstin PEZOLDT

Technische Universität Ilmenau, Germany
kerstin.pezoldt@tu-ilmenau.de

Anne CORRENS

Technische Universität Ilmenau, Germany
anne.michaelis01@googlemail.com

Marian ZAJKO

Slovak University of Technology in Bratislava, Slovakia
marian.zajko@stuba.sk

ABSTRACT .

The launch of innovative products very often encounters adoption barriers of consumers. A suitable communication with consumers is the new product preannouncement (NPP). It helps reduce adoption barriers and accelerates the adoption process. It is an important communication instrument for innovative SMEs. After defining NPP, the paper analyses the content structure of the main components contained in NPP from a consumer point of view. Based on the analysis of existing literature the authors found that there were only a few studies on the properties and quality of information communicated in NPP that influence a successful market launch of product innovations. Above all there is a lack of studies on NPP content in terms of a successful market launch of product innovations. The following analysis of the main NPP components enables to derive recommendations for SMEs on the communication policy for preannouncements and launching product innovations in order to reduce individual adoption barriers.

Keywords: *new product preannouncement, SME, customer adoption barriers, customer communication.*

IMPORTANCE OF INNOVATIONS FOR THE GERMAN ECONOMY

Innovations enable small and medium enterprises (SMEs) to maintain their competitiveness. That applies to process innovations as well as product innovations, (Hauschildt/Salomo 2011, p. 5). In a global world with big technological progress it is especially the SMEs that are faced with innovation pressure (Trommsdorff/Steinhoff 2013,1). Under these conditions SMEs can secure their existence by facing their competitors with a high innovation activity, generate competitive advantage and achieve profits on the markets. In 2017 German companies spent 166.9 billion Euro for their innovation projects. The share of innovation expenditures on revenues of the German economy makes about 3 %, whereas the innovation intensity in the industry makes 4.7% and in the service sector about 1.3% (Peters 2018).

There are 2.5 million SMEs in Germany, i.e. 99.3% of all German companies, thereof 2 million of micro-companies and 18,000 of big companies (Genesis 2019). 60.8 % of SMEs report innovation activities since they developed innovations or implemented them in their company. 31.9 % of

German SMEs developed and sold innovations (innovative products and services) (ZEW 2017).

The highest innovation expenditures are in the pharmaceutical industry achieving 17.5 % of revenues followed by the branches of electrical engineering, measuring technology and optics with 13.1 %. Within the automotive industry the innovation expenditures are 10 % of revenues, in the shipbuilding, railway and aeroplane manufacturing 8.9 %, in the electrical engineering 8.4 % and in mechanical engineering 6.2 % (Statista 2019).

In 2017 SMEs achieved an overproportional increase of innovation expenditures compared to the 2016 with 6.4 %. The expenditures of big companies rose by 4.3 % only (ZEW 2019, p. 4). Brink et al. (2018) showed in their analysis that SMEs, including those without any research and development activities, generated within five years three quarters of innovations in Germany.

In 2017 they achieved total revenues with product innovations in the amount of 822.5 billion euro. That corresponds to 15.5 % of total revenue of German industries. From this total revenue 654.3 billion euro were generated by imitation innovations and 168.2 billion Euro by innovative products that had not been offered by any other company at the market before (ZEW 2019, p. 8).

Product innovations have an increasing share of the total revenue of companies. They represent the decisive value in the competition for demanding customers and early identification of customer needs. Product innovations must be developed and launched successfully within increasingly shorter time intervals.

LAUNCH OF AN INNOVATION

The paper understands product as a material item manufactured and offered for sale without consideration of service items. Product innovation is successful when it has been accepted by society, i.e. adopted at the level of individuals first. The adoption includes the purchase of the product innovation by an individual. It happens rarely immediately after the market launch, often it is delayed or it fails (Trommsdorff/Steinhoff 2013, p. 3). Product innovations are reported to have high failure rates of 40 % to 70 % (Hultink et al. 2000, p. 11). The rejection of a product innovation at the individual level may be caused, e.g. by insufficient marketing and sales measures (Cooper 2010, p. 23). Thus there occur barriers which may prevent consumers from an individual adoption of the product innovation (Ram/Sheth 1989, p. 5). Adoption barriers emerge when the product innovation cannot be evaluated adequately by consumer due to the lack of information and missing experience (Trommsdorff/Teichert 2011, p. 218). This is the origin of high insecurity perceived by consumer which acts as a barrier and may prevent or delay the adoption of product innovations. The shorter the product life cycles, the higher the challenges for the SMEs to reduce the adoption barriers already before the market launch of a product innovation, in order to ensure the innovation adoption as fast as possible.

Therefore, market launch preparation is crucial for the success of product innovation. Minimization of consumer adoption barriers requires correct communication policy, i.e. SMEs must communicate deliberately and intensively with consumers before the market launch. Up till now SMEs have had no specific guidelines on preannouncing their innovative products. Thus it is important for SMEs intending to achieve a fast and successful adoption of their product to know how to design and use NPP in order to reduce adoption barriers at the level of individual consumers as early as possible. The conclusions of the authors of this paper should help SMEs achieve this goal.

PAPER OBJECTIVES

Based on the analysis of relevant literature on NPPs the following questions are answered in the paper:

1. What is an NPP and what are its tasks?
2. Why is it necessary to communicate with consumers by means of NPP?
3. What are the components of a NPP?

4. How to design NPP in order to reduce individual adoption barriers?
5. What recommendations on communication policy should be followed by SMEs?

NEW PRODUCT PREANNOUNCEMENT AND ITS TASKS

Preannouncements of new products (NPP) are a part of the communication policy of a SME and thus an instrument to provide specific information for consumers before the actual market launch of the product innovation. NPP is the deliberate communication of information about product innovations before its physical market launch (Kohli 1999, p. 47). Consumers are provided with more time to get acquainted with the innovative product. The information communicated in a NPP help consumers to prepare for the innovative product that will be launched. It is possible to reduce uncertainties acting as adoption barrier. The communication of NPP is carried out preferably via press releases, conferences, fairs or web presences (Kohli 1999, p. 47).

Preannouncements of new products can be treated from timing and content aspects. The time component is characterized by the prefix „pre“ and shows that the preannouncement of product innovation takes place before its physical market launch. This differentiates the NPP from the classical advertisement which focuses on products already available on the market. The content component of NPP provides information about the product innovation. Scharffenberg (2000, p. 9) defines NPP as „(...) an instrument of communication policy of producing company serving as deliberate communication of product-related information before the market launch of a new product.“ Burke et al. (1990, p. 342) specify the communicated information and define NPP as “(...) formal communications that provide new information to consumers about a product's availability, features, applications, defects, or its discontinuation.”

In the literature there is a broad variety of definitions for the concept „new product or product preannouncement“ (Michaelis, 2016, p. 13). Since the focus of this paper is NPP which is directed at consumers we define NPP based on the statement from Kohli (1999, p. 47). Thus, NPP are consumer addressed and deliberately planned communication measures made by companies in form of information about the product innovation before its actual physical market launch.

ROLE OF NPP IN CONSUMER COMMUNICATION

NPP can address a broad scope of addressees, such as consumers, competitors, sales partners and investors. However, SMEs can manage, to a certain extent, that the NPP will reach and address the desired target group with relevant information through the choice of communication channels (Le Nagard-Assayag/Manceau 2001, p. 205; Rabino/Moore 1989, p. 42; Su/Rao 2010, p. 660).

Consumers are the final users of tangible and intangible goods and thus those who should use the product innovation in the end. They determine the success of the product innovation purchasing and using it, since a successful market launch is marked by its dissemination in society. (Rogers 2003, p. 5). In order to achieve a fast diffusion at the level of society, the consumer-related objectives of NPP need to be fulfilled in order to have a positive impact on the adoption, i.e. the acceptance of the product innovation at an individual level (Kohli 1999, p. 45; Su/Rao 2010, p. 667). The communication of NPP focuses on an early dealing of potential consumers with the product innovation. So the adoption process will start already before the market launch (Le Nagard-Assayag/Manceau 2001, p. 206) and hence, a purchase-ready consumer base is created.

Through the communication of NPP SMEs inform consumers and enable them to deal with the product innovation in an early state (Koku et al. 1997, p. 187; Montaguti et al. 2002, p. 25). The provision of relevant and convincing information has to generate awareness about the product - innovation and arouse interest as well as attention (Rabino/Moore 1989, p. 39). The NPP should also help consumers to get prepared for the product innovation. A successful market launch is only possible when consumers understand the product advantages (Trommsdorff/Steinhoff 2013, p. 36). Depending on the innovation degree and complexity of the product innovation NPP should be communicated earlier or later. Early NPPs are communicated long before the date of market launch whereas late NPPs are made public shortly before the date of market launch (Lilly/Walters 1997,

p. 10). The earlier the NPP is communicated, the more time is available for consumers to learn about the product innovation (Kohli 1999, p. 54). Only by gaining knowledge consumers can evaluate the product innovation (Rogers 2003, p. 174), i.e. reduce perceived risks and build up trust and positive expectations (Kohli 1999, p. 45; Le Nagard-Assayag/Manceau 2001, p. 208; Pae/Hyun 2006, p. 25). A positive attitude towards the product innovation supports not only its successful adoption but also stimulates positive word-of-mouth (Eliashberg/Robertson 1988, p. 283) that again boosts fast a diffusion of the product innovation at the market.

NPP should prevent consumers from buying a competing product. The primary goal is that consumers wait for the preannounced product innovation, postpone or even cancel their planned purchases of products that are already available on the market. The NPP also provides the possibility for SME to receive feedback about the product innovation still before its market launch (Brockhoff/Rao 1993, p. 213). This feedback may be used for the estimation of the product innovation's market potential or it may be used as a basis for product adjustments or changes (Lilly/Walters 1997, p. 8). The objectives mentioned earlier indicate the potential of NPP. However, the communication of NPP is not without risks that have to be taken into consideration by companies. (Eliashberg/Robertson 1988, p. 283). The market launch of product innovations may lead to disappointments on the part of consumers, when their expectations build before and are not met. This is even more likely, if the NPP makes unrealistic promises in advance that lead to exaggerated expectations (Preukschat 1993, p. 10). Another risk can occur when the communicated date of market launch is delayed. If the date of market launch is communicated as obligatory and then is not adhered, it may lead to losses of image and trustworthiness of the company (Eliashberg/Robertson 1988, p. 283; Su/Rao 2010, p. 658).

NPP STRUCTURE AND COMPONENTS

The NPP structure follows the same principles as the design of classical advertisements. It is distinguished between content and formal design elements (Huth/Pflaum 2005, p. 282). The content elements include for example text and its structuring, pictures, as well as application of humour, various appeal forms and argumentation styles. The formal elements include for example considerations on typography, arrangement of text and pictures, format or use of colours (Moser 2002, p. 181 ff.). Figure 1 gives an overview of content and formal design elements of NPP (Michaelis 2016, p. 25).

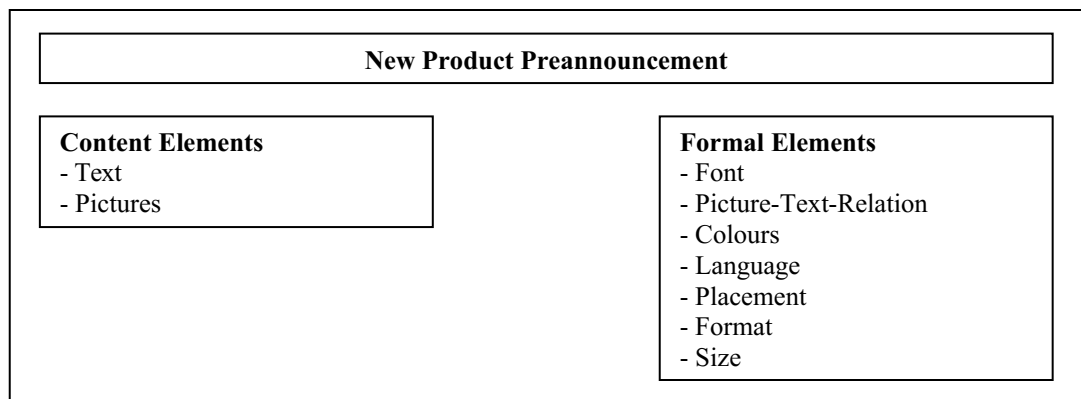


Figure 1: Content and formal design elements of new product preannouncement

The content elements provide information on the product innovation to consumers in the form of continuous text, structured text or pictures. The wording of content depends on the preannounced product innovation. The arrangement of content elements also depends on the individual formal elements of NPP. The formal elements determine the layout of NPP (Seeborn 2011, p. 128).

The main components of a NPP are the headline, pictures, additional text and brand descriptions

(Kroeber-Riel/Gröppel-Klein 2013, p. 356). The headline has a central position in the NPP, since it is perceived first, it catches attention and it should motivate consumer to read the whole of NPP (Diller 2001a, p. 605; Felser 2007, p. 388; Seeborn 2011, p. 89). Studies on consumer's perception behaviour of advertisements have shown that pictures are of special importance. They are perceived earlier than continuous texts and strengthen the advertising message (Bak 2014, p. 100). The continuous text is the core of the content within a NPP and has primarily an information function (Zielke 1991, p. 74).

Since the focus of this paper is the design of NPP content, it is important to know the effects of the headline, pictures and text on consumer. The headline is integrated as a content element. The same applies to the text representing the description of the product innovation. Formal elements are an indispensable part of NPP. Therefore, the element picture is considered together with the use of colours. They are not related to the formal design of pictures but to the NPP as a whole. Colours are part of the concept of context including both content and formal elements. The context means that the pictures and colours in the NPP create a framework in which the text information is embedded. Figure 2 summarizes the layout of NPP (Michaelis 2016, p. 26).

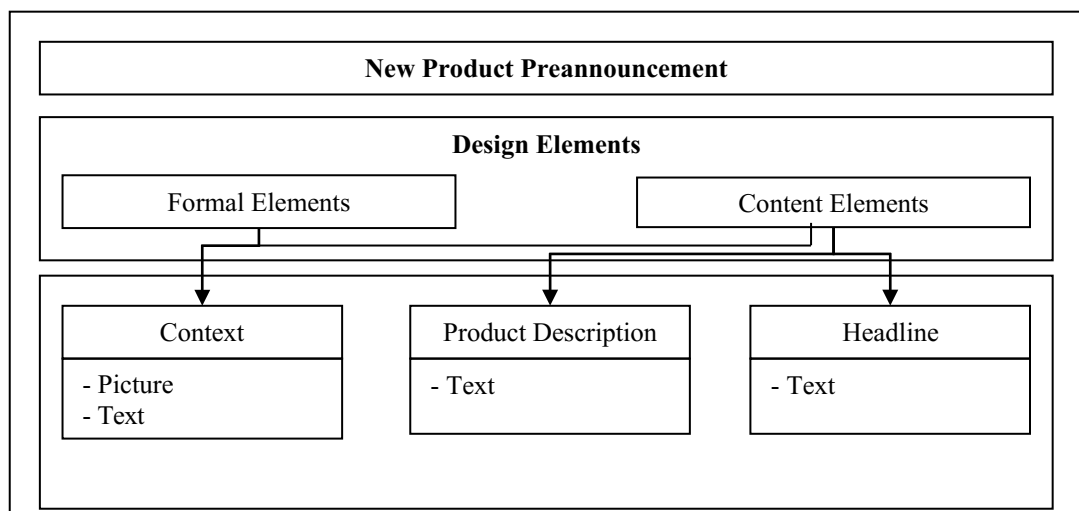


Figure 2: Layout of new product preannouncement

NPP DESIGN AND REDUCTION OF INDIVIDUAL ADOPTION BARRIERS

In the literature there are only a few studies on the properties and quality of information communicated in NPP, which are the key to the successful implementation of product innovations (e.g. Chaudhuri et al. 2010; Talke/Snelders 2013). The following short overview of relevant literature on the NPP in the period from 1980 to 2017 is the result of a systematic database query via the EBSCO (Business Source Premier), ScienceDirect, Emerald, Google Scholar and combined catalogue of the Ilmenau University of Technology. The analysis of studies on the NPP indicates that it is possible to elaborate systematic research on content aspects of NPP by the communicated information types, information properties, information quality and information content.

The information type includes the specific information communicated in NPP, e. g. price, launch date and functions of the product innovation. The information properties describe the way information is communicated in NPP, e.g. concrete or abstract form, positive or negative form. The information quality covers information properties, such as trustworthiness, consistency, and comprehensibility. Wang and Strong (1996, p. 6) describe the information quality as information suitability for use by data consumers. The information content covers the level of detail of information communicated in NPP.

Studies dealing with the design of NPP content show primarily that there is a great diversity of various information types. Rabino and Moore (1989, p. 38 ff.) conducted in depth interviews with consultants of computer manufacturing companies and state that NPP may include technical information as well as information on price, performance, availability and delivery date of the product innovation. The interviews show that NPPs communicated long before the market launch of the product innovation contain only a general preannouncement without any further specific information. Concrete information follows at a later date. This means that the level of detail increases as the date of market launch draws near. This assumption is confirmed by Merkel (2007, p. 122), who proves in her interviews with marketing managers from the automotive industry that NPP communicated close to the market launch date contains higher level of detailed information than an early NPP. Preukschat (1993, p. 150) shows in his survey of companies from various industries that product and existence information can be communicated in an NPP for consumers. Existence information announces to consumers that a product innovation exists. This is conform with the opinion of Rogers (2003, p. 172) that generation of „awareness knowledge“ is considered to be an important starting point for the adoption since only the conscious perception of product innovation motivates consumers to ask for additional information.

The considerations show that the information type influences the perception and behavioural intentions of consumers. It is apparent that the influence of various information types may have various intensities. Talke and Snelders (2013, p. 738) show that person-related information, such as wish for uniqueness, acceptance, fun or environment-friendly way of life has the strongest positive effect upon adoption intention of consumers, followed by technical and financial information. Person-related information should address the consumer needs and show how a product can satisfy them. Thereby the authors justify also the strong positive effect of this information type. The technical and financial information embrace, e.g. technical equipment, functions, compatibility or price-performance ratio of a product innovation.

Chen et al. (2007, p. 1051 and further) show that various information types vary in their effect on the efficiency of NPP. They consider the information on product properties as corresponding to the concept of technical information by Talke and Snelders (2013). In addition they consider information about facts, brands and emotions. Brand-related information cover information about the relationship of the product innovation to the umbrella brand. Fact-related information describes the product innovation and informs about its existence. In contrast the emotion-related information emphasise subjective experiences from the use of the product innovation. The results of Chen et al. (2007, p. 1051) indicate that except for emotion-related information all information types have positive effects on the sale success and perception, e.g. in the form of positive word-of-mouth, whereby the positive effect of brand-related information is the strongest. Chen et al. (2007, p. 1049) explain this effect with a strong established brand that can reduce the insecurity level and hence, affects consumer's attitude to the product innovation positively.

Niedbal (2005, p. 212) shows that companies may influence the consumer preferences in a positive manner if the information communicated in the NPP addresses the consumer needs. For this purpose SMEs must identify and interpret the consumer needs first. In this respect the order of communication of information types is also relevant (Niedbal 2005, p. 210 and further). According to these results the consumers must be aware of their needs first before they are able to evaluate concrete properties of the product innovation. First the new needs that are supposed to be satisfied with the product innovation have to be addressed and only later the product functions. However, this goes for radical innovations only as consumers already know their needs for incremental innovations (Niedbal 2005, p. 140 and further).

Bornemann (2010, p. 89) shows that the effect of information types also depends on the timing of NPP communication since consumers apply different evaluation criteria for early and distant events. In his empirical research he deals with financial information in the form of the specific price of a product innovation and concludes that a higher communicated price in an early NPP has a positive effect on the perceived quality of the product innovation, whereas a higher price in a later NPP leads to the perception of high costs (Bornemann 2010, p. 93 and further). This effects the total evaluation of product innovation (Bornemann 2010, p. 98). Ernst und Schnoor (2000, p. 1333 and further)

consider patent information as a specific information type. Robertson et al. (1995) investigate the effect of patent information on consumer perception and show that patent information as a signal of quality exert a positive effect on the perceived trustworthiness of NPP.

From the analysed studies follows that not only the communicated information types but also information properties and information quality exert a decisive effect upon the consumer behaviour. They support positive effects among the information types and target values. Chen et al. (2007, p. 1052) show that information communicated in an unambiguous or consistent manner enhance the positive interdependence among information types and sales success as well a positive perception of the product innovation. If e.g. NPPs are communicated in various time intervals with new information, it is important that the information remain consistent all the time. The consistent information also reinforce the positive effect of information types upon the sales success, however, not upon the perception of product innovation. Chen and Wong (2012, p. 215) extended this study by proving that unambiguous information have a positive effect on the information perception. Talke and Snelders (2013, p. 738) argue that the abstract and concrete representation of information enhances positive interdependence of effects among communicated information types and the adoption intention. Hence, the adoption intention is increased when person-related and technical information are represented in an abstract and financial information in a concrete manner. The abstract representation includes, e.g. pictorial descriptions and the concrete representation is based on facts (Talke/Snelders 2013, p. 736). The fact that information properties in combination with specific information types are also dependent from the target value that's to be effected shows that technical information are to be communicated in a concrete manner in order to achieve a high willingness of consumers to pay. Whereas person-related information should be represented in an abstract manner, financial information in a concrete manner. This statement can be justified as the way of information representation has positive effect on the consumer imagination. (Talke/Snelders 2013, p. 741 and 743). Burke et al. (1990, p. 344) show that negative information, i.e. information emphasizing what the product innovation cannot do has a negative effect on the purchase intention whereas positive information have a positive effect on the purchase intention. The reason is that negative information has stronger weight for consumers and are perceived in a more conscious way. Therefore, companies should not emphasise in NPP, e.g. incompatibilities of product innovation.

The next question for SMEs is how much information should be communicated in order to support positive effects of NPP on consumers. The available studies show ambivalent results on the effect of information content on NPP. Schirm (1995, p. 142) as well as Ernst and Schnoor (2000, p. 1345) argue that the higher level of detail (information content) has positive effects on the perceived trustworthiness of NPP. However, a higher information content may arouse doubts about their feasibility, especially about radical product innovations (Gemünden 1985, p. 35). On the contrary Niedbal (2005, p. 210 and further) states a positive effect of high information content on the state of consumer knowledge arguing that only sufficient knowledge on own perception may enable adequate evaluation of the product innovation. The effect of higher information content on total perception of NPP is shown by Chen and Wong (2012, p. 215) in their empirical study. According to their results higher information content leads to high perception of non-ambiguity, to a consistent NPP. It can be concluded that the information content as a part of the content design is a relevant communication factor of an NPP.

The analysis of literature shows that the design of NPP content, i.e. the information types, information properties, information quality and information content influence the perception and thus behavioural intentions of consumers. Their effects must be taken into account especially in the design of the context product description and headline within a NPP. However, not all the statements in the analysed papers are always positive and without limitations. The positive effect of NPP content is also dependent on product, industry and consumer-related factors (Ernst/Schnoor 2000, p. 1342; Preukschat 1993, p. 152 and others). It is always necessary to verify whether the product innovation has hedonic properties (associated with fun, joy, pleasure and positive feelings) or utilitarian properties (associated with purpose and use).

CONCLUSIONS: IMPLICATIONS FOR SMEs

The purpose of this paper was to fill in the gap in the NPP literature by summarizing and analyzing the most relevant contribution on this topic by the NPP elements in order to suggest recommendations for the SMEs in this field which had been missing as well up till now. The reduction of consumer adoption barriers caused by the launch of product innovations and accelerate the adoption process it is important to communicate with consumers before the product launch. NPPs are an efficient instrument for this purpose. If consumers perceive all components of an NPP as suggested, the adoption process and thus market launch of innovative product may be accelerated. The following recommendations can help SMEs achieve successful market launch of their product innovations:

1. NPP influence consumer preferences for product innovations in a positive way, if the communicated information addresses the consumer needs. That is, SMEs must identify and interpret the consumer needs first. The new needs aroused by an innovative product have to be addressed first and then product functions can be communicated. This is important especially for radical innovations, as the consumer needs are not known yet. A special quality signal is patent information which increases the trustworthiness of NPP.
2. Since the generation of „awareness knowledge“ is an important starting point for the conscious perception of product innovations by consumers and for their purchase motivation, SMEs should carefully consider and design the information about the product innovation communicated.
3. The timing is also an important factor in positioning NPP in the communication channels, because consumers evaluate early and distant events in a different way. Thus the information content should be increased with the approaching market launch date. In contrast a higher price communicated in an early NPP suggests a high quality of the innovative product, whereas a higher price in a late NPP evokes an impression of high purchase cost of innovation.
4. Since different information types are important in overcoming innovation barriers, the person-related information such as the wish of uniqueness, acceptance or fun should be strongly communicated in NPP. They influence the adoption intention of consumers in the most positive way, because they address the individual objectives of consumers. The brand-related information should also be reinforced in NPP communication, since a strong and established brand reduces insecurities and has a positive effect on consumer attitudes towards the product innovation. The influence of technical and financial information is not as high as for the other information types.
5. The information properties and their quality contained in NPP influence the adoption behaviour of consumers. Therefore, it is necessary to ensure that information communicated in NPP is unambiguous and consistent, because they enhance the interdependence of positive effects among information types and sale success as well as the positive perception of product innovation.
6. Since the way information are represented has a positive effect on the imagination of consumers, it is important to represent person-related and technical information in an abstract manner, e.g. by means of pictorial descriptions, and financial information in a concrete manner. In addition technical information must be communicated in a concrete manner in order to achieve a high willingness to pay.
7. The NPP components such as context, product description and headline create the information and evaluation base being perceived consciously or unconsciously by consumers. The headline is perceived first. It generates attention, arouses curiosity and motivates to continue reading. A motivation effect is also evoked by familiar formulations followed by contrasts, announcements and utility-related, emotional as well as unexpected statements (Beltramini et al. 1986, p. 50 and further.). The context with pictures and colour creates the framework of a NPP. Since pictures are perceived earlier than texts, they strengthen the advertising message. If the NPP is designed for a utilitarian innovation product with preference of functionality and use, then functional pictures and colours should also be selected.
8. NPP evokes adoption intention and triggers the adoption process. Its final purpose consists in

the creation of a purchase-ready consumer base. However, in order to support a successful market launch and create product acceptance in a society SMEs have to communicate with their target group(s) about the innovative product and inform them even beyond the NPP and satisfy the information needs of consumers on an ongoing basis.

REFERENCES

Bak, P. M. (2014): Werbe- und Konsumentenpsychologie. Eine Einführung. Stuttgart.

Beltramini, R. F.; Blasko; Vincent J. (1986): An Analysis of Award-Winning Advertising Headlines. In: *Journal of Advertising Research*, 26 (2), p. 48–52.

Brink, S; Nielen,P.; May-Strobl, E. (2018): Innovation ist mehr als Forschung und Entwicklung, in: Mittelstand aktuell 2/18, p. 1, Bonn.

Bornemann, T. (2010): Neuproduktvorankündigungen. Inhaltliche Gestaltung und marktbezogene Auswirkungen. Wiesbaden.

Brockhoff, K. K.; Rao, V. R. (1993): Toward a Demand Forecasting Model for Preannounced New Technological Products. In: *Journal of Engineering and Technology Management*, 10 (3), p. 211–228.

Burke, R. R.; Cho, J.; DeSarbo, W. p.; Mahajan, V. (1990): The Impact of Product-Related Announcements on Consumer Purchase Intentions. In: *Advances in Consumer Research*, 17 (1), p. 342–350.

Chaudhuri, A.; Aboulnasr, K.; Ligas, M. (2010): Emotional Responses on Initial Exposure to a Hedonic or Utilitarian Description of a Radical Innovation. In: *The Journal of Marketing Theory and Practice*, 18 (4), p. 339–359.

Chen, C.-W.; Shen, C.-C.; Chiu, W.-Y. (2007): Marketing Communication Strategies in Support of Product Launch: An Empirical Study of Taiwanese High-Tech Firms. In: *Industrial Marketing Management*, 36 (8), p. 1046–1056.

Chen, C.-W.; Wong, V. (2012): Design and Delivery of New Product Preannouncement Messages. In: *Journal of Marketing Theory and Practice*, 20 (2), p. 203–221.

Cooper, R. G. (2010): Top oder Flop in der Produktentwicklung. Erfolgsstrategien: Von der Idee zum Launch. 2. Aufl., Weinheim.

Eliashberg, J.; Robertson, T. P. (1988): New Product Preannouncing Behavior: A Market Signaling Study. In: *Journal of Marketing Research*, 25 (3), p. 282–292.

Ernst, H.; Schnoor, A. (2000): Einflussfaktoren auf die Glaubwürdigkeit kundenorientierter Produkt-Vorankündigungen: Ein signaltheoretischer Ansatz. In: *Zeitschrift für Betriebswirtschaft*, 70 (12), p. 1331–1350.

Felser, G. (2007): Werbe- und Konsumentenpsychologie. 3. Aufl., Berlin.

Genesis (2019): Kleine und mittlere Unternehmen: Zahlen und Fakten: <https://www.destatis.de/DE/ZahlenFakten/GesamtwirtschaftUmwelt/UnternehmenHandwerk/KleineMittlereUnternehmenMittelstand/KleineMittlereUnternehmenMittelstand.html>.

Gemünden, H. G. (1985): Wahrgenommenes Risiko und Informationsnachfrage : Eine systematische Bestandsaufnahme der empirischen Befunde. In: *Marketing ZFP*, 7 (1), p. 27–38.

Hauschildt, J.; Salomo, P. (2011): Innovationsmanagement. 5. Aufl., München.

Hultink, E. J.; Hart, P.; Robben, H.Pp. J.; Griffin, A. (2000): Launch Decisions and New Product Success: An Empirical Comparison of Consumer and Industrial Products. In: *Journal of Product Innovation Management*, 17 (1), p. 5–23.

Huth, R.; Pflaum, D. (2005): Einführung in die Werbelehre. 7. Aufl., Stuttgart.

Kohli, C. (1999): Signaling New Product Introductions: A Framework Explaining the Timing of Preannouncements. In: *Journal of Business Research*, 46 (1), p. 45–56.

Koku, P. P.; Jagpal, H. P.; Viswanath, P. V. (1997): The Effect of New Product Announcements and Preannouncements on Stock Price. In: *Journal of Market Focused Management*, 2 (2), p. 183–199.

Kroeber-Riel, W.; Gröppel-Klein, A. (2013): Konsumentenverhalten. 10. Aufl., München.

Le Nagard-Assayag, E.; Manceau, D. (2001): Modeling the Impact of Product Preannouncements in the Context of Indirect Network Externalities. In: *International Journal of Research in Marketing*, 18 (3), p. 203–220.

Lilly, B.; Walters, R. (1997): Toward a Model of New Product Preannouncement Timing. In: *Journal of Product Innovation Management*, 14 (1), p. 4–20.

Merkel, O. (2007): Die Wirkung kundenorientierter Produkt-Vorankündigungen – Eine empirische Untersuchung am Beispiel der Automobilindustrie. Göttingen.

Michaelis, A. (2016): Neuproduktvorankündigungen. Theoretische und empirische Analyse der Risikowahrnehmung von Konsumenten, Ilmenau.

Montaguti, E.; Kuester, P.; Robertson, T. p. (2002): Entry Strategy for Radical Product Innovations: A Conceptual Model and Propositional Inventory. In: *International Journal of Research in Marketing*, 19 (1), p. 21–42.

Moser, K. (2002): Markt- und Werbepsychologie. Göttingen.

Niedbal, M. (2005): Vorankündigung von Produktinnovationen. Eine marktprozess-theoretische Analyse der Käufer- und Wettbewerbsreaktionen. Wiesbaden.

Pae, J. H.; Hyun, J. P. (2006): Technology Advancement Strategy on Patronage Decisions: The Role of Switching Costs in High-Technology Markets. In: *Omega*, 34 (1), p. 19–27.

Peters, B. (2018): Innovationsausgaben der deutschen Wirtschaft erreichen neuen Rekordwert, in: ZEW-Pressemitteilung v. 8.2.2018:
<https://www.zew.de/de/presse/pressearchiv/innovationsausgaben-der-deutschen-wirtschaft-erreichen-neuen-rekordwert/>

Preukschat, U. D. (1993): Vorankündigung von Neuprodukten. Strategisches Instrument der kommunikationspolitischen Markteinführung. Wiesbaden.

Rabino, P.; Moore, T. E. (1989): Managing New-Product Announcements in the Computer

Industry. In: *Industrial Marketing Management*, 18 (1), p. 35–43.

Ram, P.; Sheth, J. N. (1989): Consumer Resistance to Innovations: The Marketing Problem and Its Solutions. In: *Journal of Consumer Marketing*, 6 (2), p. 5–14.

Rogers, E. M. (2003): *Diffusion of Innovations*. 5. Aufl., New York.

Scharffenberg, M. (2000): *Die Aufnahmebereitschaft des Handels für neue technologische Gebrauchsgüter unter Berücksichtigung von Produkt-Vorankündigungen*. Frankfurt am Main.

Schirm, K. (1995): *Die Glaubwürdigkeit von Produkt-Vorankündigungen. Eine theoretische und empirische Untersuchung der Beurteilung von Produkt-Vorankündigungen durch Konsumenten*. Wiesbaden.

Seeborn, J. (2011): *Gabler Kompaktlexikon Werbung. 1400 Begriffe nachschlagen, verstehen, anwenden*. 4. Aufl., Wiesbaden.

Statista 2019: Anteil der Innovationsausgaben am Umsatz ausgewählter Branchen in Deutschland im Jahr 2016, <https://de.statista.com/statistik/daten/studie/275139/umfrage/investitionsanteil-am-gesamtumsatz-ausgewaehlter-industriebranchen-in-deutschland/>

Talke, K.; Snelders, D. (2013): Information in Launch Messages: Stimulating the Adoption of New High-Tech Consumer Products. In: *Journal of Product Innovation Management*, 30 (4), p. 732–749.

Trommsdorff, V.; Steinhoff, F. (2013): *Innovationsmarketing*. 2. Aufl., München.

Trommsdorff, V.; Teichert, T. (2011): *Konsumentenverhalten*. 8. Aufl., Stuttgart.

Wang, R. Y.; Strong, D. M. (1996): Beyond Accuracy: What Data Quality Means to Data Consumers. In: *Journal of Management Information Systems*, 12 (4), p. 5–33.

Wild, J. (1971): Zur Problematik der Nutzenbewertung von Informationen. In: *Zeitschrift für Betriebswirtschaft*, 44 (5), p. 315–334.

ZEW-Leibniz-Zentrum für Europäische Wirtschaftsforschung GmbH (Hrsg.) (2019): *Innovationen in der deutschen Wirtschaft: Indikatorenbericht zur Innovationserhebung 2018*, Mannheim.

ZEW-Leibniz-Zentrum für Europäische Wirtschaftsforschung GmbH (Hrsg.) (201): *Community Innovation Survey (CIS)*: <https://www.zew.de/de/publikationen/zew-gutachten-und-forschungsberichte/forschungsberichte/innovationen/community-innovation-survey-cis/>.

Zielke, A. (1991): *Beispiellos ist beispielhaft oder: Überlegungen zur Analyse und zur Kreation des kommunikativen Codes von Werbebotschaften in Zeitungs- und Zeitschriftenanzeigen*. Pfaffenweiler.